

NOS2 (H-174): sc-8310

BACKGROUND

Nitric oxide (NO) has a broad range of biological activities and has been implicated in signaling pathways in phylogenetically diverse species. Nitric oxide synthases (NOSs), the enzymes responsible for synthesis of NO, contain an N-terminal oxygenase domain and a C-terminal reductase domain. NOS activity requires homodimerization as well as three cosubstrates (L-arginine, NADPH and O₂) and five cofactors or prosthetic groups (FAD, FMN, calmodulin, tetrahydrobiopterin and heme). Several distinct NOS isoforms have been described and been shown to represent the products of three distinct genes. These include two constitutive Ca²⁺/CaM-dependent forms of NOS, including NOS1 (also designated ncNOS) whose activity was first identified in neurons, and NOS3 (also designated ecNOS), first identified in endothelial cells. The inducible form of NOS, NOS2 (also designated iNOS), is Ca²⁺-independent and is expressed in a broad range of cell types.

CHROMOSOMAL LOCATION

Genetic locus: NOS2 (human) mapping to 17q11.2; Nos2 (mouse) mapping to 11 B5.

SOURCE

NOS2 (H-174) is a rabbit polyclonal antibody raised against amino acids 2-175 mapping at the N-terminus of NOS2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NOS2 (H-174) is recommended for detection of NOS2 (iNOS) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with NOS1 (ncNOS) or NOS3 (ecNOS).

Suitable for use as control antibody for NOS2 siRNA (h): sc-29417, NOS2 siRNA (m): sc-36092, NOS2 shRNA Plasmid (h): sc-29417-SH, NOS2 shRNA Plasmid (m): sc-36092-SH, NOS2 shRNA (h) Lentiviral Particles: sc-29417-V and NOS2 shRNA (m) Lentiviral Particles: sc-36092-V.

Molecular Weight of NOS2: 130 kDa.

Positive Controls: RAW 264.7 + LPS/PMA cell lysate: sc-2212.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

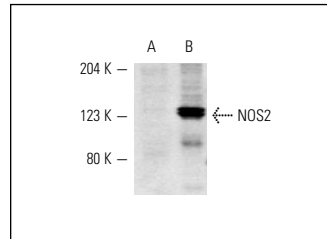
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

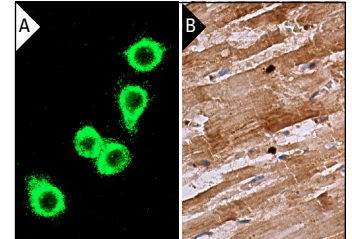
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



NOS2 (H-174): sc-8310. Western blot analysis of NOS2 expression in RAW 264.7 (A) and LPS/PMA-treated RAW 264.7 (B) whole cell lysates.



NOS2 (H-174): sc-8310. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes cells (B).

SELECT PRODUCT CITATIONS

- Chen, G.G., et al. 2002. Increased apoptosis in infiltrating mononuclear cells of colorectal cancer: a mechanism for tumor escape. *Arch. Pathol. Lab. Med.* 126: 686-691.
- Salvolini, E., et al. 2011. VEGF and nitric oxide synthase immunoexpression in Down's syndrome amniotic fluid stem cells. *Eur. J. Clin. Invest.* 41: 23-29.
- Razafimanjato, H., et al. 2011. The ribotoxin deoxynivalenol affects the viability and functions of glial cells. *Glia* 59: 1672-1683.
- Tian, D., et al. 2011. Hypertensive nephropathy treatment by heart-protecting musk pill: a study of anti-inflammatory therapy for target organ damage of hypertension. *Int. J. Gen. Med.* 4: 131-139.
- Paola, R.D., et al. 2011. Effects of verbascoside, biotechnologically purified by *Syringa vulgaris* plant cell cultures, in a rodent model of periodontitis. *J. Pharm. Pharmacol.* 63: 707-717.
- Villegas, I., et al. 2011. Chemopreventive effect of dietary curcumin on inflammation-induced colorectal carcinogenesis in mice. *Mol. Nutr. Food Res.* 55: 259-267.
- Cuadrado, I., et al. 2012. Labdanolic acid methyl ester (LAME) exerts anti-inflammatory effects through inhibition of TAK-1 activation. *Toxicol. Appl. Pharmacol.* 258: 109-117.
- Gao, J., et al. 2012. Ontogeny of angiotensin type 2 and type 1 receptor expression in mice. *J. Renin Angiotensin Aldosterone Syst.* 13: 341-352.
- Simic, B., et al. 2012. Torcetrapib impairs endothelial function in hypertension. *Eur. Heart J.* 33: 1615-1624.


 MONOS
Satisfaction
Guaranteed

Try **NOS2 (C-11): sc-7271**, our highly recommended monoclonal alternative to NOS2 (H-174). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **NOS2 (C-11): sc-7271**.